DOCUMENT RESUME

ED 090 270 TM 003 545

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TITLE Research and Development: A Function of State Departments.
PUB DATE Feb 74
NOTE 10p.; Paper presented at the Annual Convention of the American Educational Research Association (Chicago, Illinois, April, 1974)

EDRS PRICE MF-$0.75 HC-$1.50 PLUS POSTAGE
DESCRIPTORS *Educational Development; Educational Needs; *Educational Research; Evaluation Criteria; Management; Research Design; Research Methodology; *State Departments of Education; Systems Development

ABSTRACT

Two important assumptions are made. First, research and development capability is essential to the fulfillment of the responsiblilities and objectives of any state department of education. Second, state departments of education are uniquely different from other educational institutions and agencies in their purpose and, therefore, in the type of research and development products required. Traditionally, state departments of education have been forced to rely upon professional knowledge and political astuteness for fulfillment of their objectives. This limited management approach is no longer adequate. A commitment must be made to the objective problem solving techniques developed under the broad label of research and development. When a state department of education does discover the important role of research and development, it then has the problem of determining an appropriate model to carry on these activities. A criteria for developing state education R&D models, or to evaluate their effectiveness is presented along with a discussion of Tennessee's R&D Model including a management chart illustrating administrative implementation. (RC)

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ED 090270

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RESEARCH AND DEVELOPMENT: A FUNCTION OF STATE DEPARTMENTS

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TM 003 545

February, 1974

RESEARCH AND DEVELOPMENT: A FUNCTION OF STATE DEPARTMENTS

In the preparation of this paper the author has made two important assumptions. First, research and development capability is essential to the fulfillment of the responsibilities and objectives of any state department of education. Second, state departments of education are uniquely different from other educational institutions and agencies in their purpose and, therefore, in the type of research and development products required. Traditionally, state departments of education have ignored, belittled, or lacked the capability to include major research and development activities in their programs. They have been forced to rely upon professional knowledge and political astuteness for fulfillment of their objectives. This limited management approach is no longer adequate. Any educational institution or agency, including state departments of education, that disavows the role of research and development in the fulfillment of its objectives has made a crucial mistake that will result in major failure in this decade.

Most state departments of education must start by a commitment to the objective problem solving techniques developed under the broad label of research and development. Appropriate use of R & D techniques in solving state educational problems is more important than the organizational labels that often receive exaggerated attention with little substance. Frequently, state departments create staffs to carry on "research," "development," "evaluation," or "testing," without real commitment or capability.

When a state department of education does discover the important role of research and development in the fulfillment of its responsibilities

to the citizens of the state, it then has the problem of determining an appropriate model to carry on these activities. The function of research and development in a state department of education is quite different from that of other institutions and agencies in the field of education. Therefore, the organizational patterns for field centered research and development should not be patterned after models for other agencies. Of course, there is some common ground among the fifty state departments of education. Certainly, the functions are the same, or similar, depending upon state statutes, constitutions, and court decisions. Nevertheless, it should be recognized that even among state departments of education there must be a diversity of models that takes into account differences.

When an appropriate model is available for a state department, the problem of staffing must be solved. Frequently, state departments of education have been highly successful in some elements of the research and development role without really delivering preconceived products to citizens of the state through the state educational system. Research and development models with a production capability that results in meaningful accomplishments as the result of well designed needs assessment studies are currently being developed and tested in some states, but the achievement of this worthwhile goal has yet to become a full fledged fact of life.

Criteria for State Education R & D Models

Criteria for developing state education R & D models, or to evaluate their effectiveness, should include the following:

1. State education R & D models should recognize the difference between the functions of the state department and the local

school systems. The state R & D model should be designed to meet state functions.

Too often, state R & D units spend most of their time designing services and supervising research and development activities to be conducted by local public school systems. Typically, this is because the guidelines of ESEA, Title III requires this activity. Sometimes, this is the only visible R & D activity that exists in the state department.

2. State education R & D models should be oriented heavily to state planning, development, and implementation, as differing from the basic research function that is best conducted in universities and the agencies uniquely prepared and traditionally oriented to this activity.

There is so little R & D activity in state education departments on a relative needs basis that this capability should be concentrated on the solution to identified state problems. These activities include searching the field for existing research conclusions and then developing, testing, and installing alternative programs. Ideally, major programs should evolve out of needs assessment and be designed in such a manner that alternative programs to meet these identified needs can be measured as to student accomplishments and cost effectiveness prior to the delivery of the program to state school systems.

3. State R & D models must be developed with a recognition of staffing limitations for it is difficult to attract competent R & D personnel to state departments of education.

Recruiting is difficult for several reasons. First, there is the political reality that new administrations frequently take over in some state departments every four years that may change the R & D emphasis sufficiently to interfere with the career objectives of these personnel. To some people this reality makes the position less attractive than the university position that offers a more protective working and writing environment. Second, salary structures in state bureaucracies are usually too inadequate and inflexible to attract and hold competent researchers. Third, the environmental relationship in which researchers must work with their fellow employees in state departments of education are not generally conducive to successful products or cooperative working conditions. Frequently, there is an indifferent or negative attitude toward researchers. Sometimes, chief decision makers lack a comprehensive understanding of what is being attempted or even what has been accomplished. Fourth, most researchers are not trained or experienced in solving state educational problems.

4. State R & D models should include, but not rely exclusively upon, contracting as a means of obtaining R & D products. Competent R & D personnel on state department staffs are required to comprehend and develop potential R & D solutions to state problems. These personnel are also critical to the important role of writing contract specifications.
5. State education R & D models must be responsive to the citizens of the state through the state's political process.

The R & D model must be responsive to specific questions asked by the state legislature, the state board of education, and the governor of the state, who represents its citizens. It must also be responsive to the specific questions asked by school officials who are developing education programs for local school systems.

6. State education R & D models should emphasize multi-year projects with products becoming available on preconceived time and cost plans.

Since promises and platitudes are no longer acceptable to most elected state officials, or to the citizens that placed them in office, R & D models must accurately relate time and resources to meaningful results. This requires multi-year plans because important state programs require years, not months, for development and implementation.

Tennessee's R & D Model

The Tennessee Department of Education's commitment to research and development can best be understood in the context of the total department organization and functions. Attached is a management chart of Tennessee's Department of Education which will help the reader obtain a quick overview of the major functions and organizational objectives of this department.

Although management charts are always inadequate, it is easy to observe on this chart that there are significant functions to be carried out by Tennessee's Department of Education which include many responsibilities not directly related to the public school system (K-12). This

is true of most state departments of education. Too often this factor is overlooked, but it must be taken into account in the general organization of any state department of education.

A quick look at the chart might lead the reader to believe that research and development is self-contained and is organized on a stand alone basis, working for the entire department of education. However, it would be impracticable in every respect to have a research and development division functioning for the department that would be of a stand alone nature. It just does not make sense to try to have all support services provided within any particular division. This research and development division in the Tennessee Department of Educa[redacted] is heavily dependent upon other divisions for major planning, development, and implementation functions.

The major function of this research and development division is to conduct studies for the department and to supervise federal research and development projects in local school systems. The model calls for a division with a limited staff that can work in an environment that is separated from excessive political pressures. The Tennessee staff is too small (twelve), but even if it were expanded, it would still rely on certain contracted activities to other research and development agencies. Some of these R & D agencies are located within the State of Tennessee and some outside the State of Tennessee. In all instances, the activities within the research and development division are handled with an emphasis on meaningful results based on appropriate R & D methodology.

The major commitment to research and development in Tennessee is not seen in the research division itself, but rather in the total

R & D commitment of Commissioner Carmichael. He expects each member of his thirteen-person Administrative Council to objectively prepare specifications, conduct studies, present data, and analyze findings.

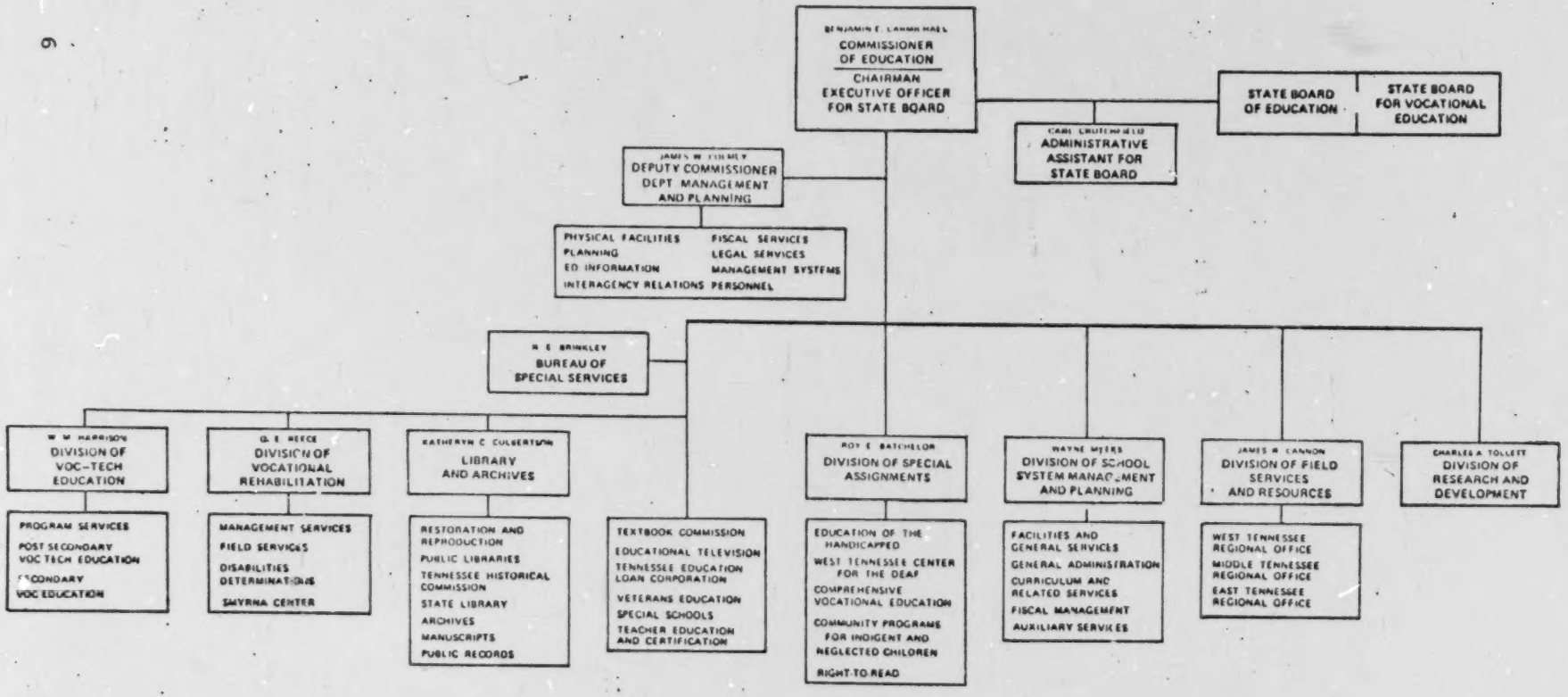
The division of department management and planning provides support services for the department of education. This division is a direct arm of the commissioner's office and its responsibility includes the coordination of all plans into a functional state plan through its planning unit and for the dissemination of educational information to the public through its information unit. The administrative units in this division interface with, and are dependent upon, other state government departments for essential services.

The division of special assignments is responsible for developing programs that will answer observed deficiencies. The division of special assignments obtains R & D services from the research and development division. The division of school system management and planning have the responsibility for implementing approved programs.

Major educational programs being introduced as direct responsibilities of the State Department of Education will cost the taxpayers from one-half to one billion dollars each in the next decade. One program, Comprehensive Vocational Education, has a special assignment development team that is funded in an amount of more than one-half million dollars over a three-year period. This program will require two hundred million dollars in capital expenditures in 1974-75-76-77, with major operating expenditures starting in September, 1975. A kindergarten program, which Governor Dunn promised to have completed during his administration will be completely operational in September, 1974.

A development team will have developed a handicapped program that will be completely operational in September, 1975. Although these are the largest programs in Tennessee at this time, there are many small programs that are critical and will have major impact on the education system in the State. These studies, conducted by the research and development division, include a pilot program in one school system related to year-round-schools, teacher certification, assessment, and educational television.

Tennessee has no intention and has no disillusions that the above studies and programs can reasonably be accomplished without effective R & D components and procedures in the forefront of the department activities.



MANAGEMENT CHART / TENNESSEE STATE DEPARTMENT OF EDUCATION / JULY, 1973